

REMARKS

This Amendment is responsive to the Office Action dated August 23, 2006. Applicant has amended claims 1, 2, 7, 9, 15, 18, 19, 23, 25, and 27-29, and canceled claim 10. Claims 1-9 and 11-29 are pending.

Amendments

Applicant maintains all of the arguments submitted in the previous response. However, Applicant has amended the claims to specify that the antenna aperture comprises a wide end and a channel disposed adjacent the wide end, as suggested by the Examiner. Although Applicant believes these amendments are not necessary to distinguish the claimed invention from the prior art, Applicant submits such amendments in the interest of expediting prosecution toward immediate allowance. None of the prior art of record provides any teaching that would have suggested the requirements of the pending claims, as amended. Therefore, Applicant respectfully requests reconsideration and allowance of all pending claims.

Claim Rejection Under 35 U.S.C. § 102

The Office Action rejected claims 1-4, 7, 18-20, 23, 25, 27 and 29 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,697,986 to Cimochoowski et al. ("Cimochoowski"); rejected claims 9-12, 15, 18-20, 23, 25, 28 and 29 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,561,975 to Pool et al. ("Pool"); and rejected claims 1-3, 25 and 27 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,601,557 to Bogle et al. ("Bogle").

Applicant respectfully traverses the rejections to the extent such rejections may be considered applicable to the claims as amended. The cited references fail to disclose each and every feature of the claimed invention, as required by 35 U.S.C. 102(b) and 102(e), and provide no teaching that would have suggested the desirability of modification to include such features.

Cimochoowski

In support of the rejection, the Office Action stated that Cimochoowski teaches an antenna with a ring-like structure that defines both a channel and an aperture, reasoning that an aperture is

defined as an opening as a hole, gap, or slit, and a channel is defined as a course through which something can be directed or moved. The Office Action further asserted that the ring-like antenna structure described by Cimochoowski is capable of holding a portion of clothing associated with a patient due to the fact that clothing can be placed within the opening, and in turn hold the ring-shaped antenna in a relatively fixed position relative to an implanted medical device. In addition, the Office Action stated that because the opening of the coil can be defined as both a channel and an aperture, if the coil of the device were held vertically then rotated about its vertical axis, the channel/aperture of the device would appear to be much thinner than the channel/aperture of the coil that is not rotated. The Office Action suggested that Applicant alter the phraseology of the claim to state that the thinner channel is disposed next to, above, or beneath the wider aperture, or something of the like.

Applicant once again takes issue with the Examiner's reliance on the mere appearance of the aperture in Cimochoowski, and not on the actual physical structure. Although Applicant believes that the Office Action has misinterpreted the scope and content of the Cimochoowski reference, as stated in the previous response, Applicant has amended independent claims 1, 18, 27 and 29 as suggested by the Office Action in order to further prosecution of the present application. However, Applicant does not acquiesce in the rejections set forth in the Office Action.

Independent claims 1, 18, 25, 27 and 29 as amended, recite an antenna for a medical device programmer that defines an aperture with a wide end and a channel disposed adjacent the wide end, wherein the channel is narrower than the wide end and is formed to hold a portion of an item of clothing associated with a patient and thereby hold the antenna in a substantially fixed position relative to an implantable medical device. Support for the amendment is provided for example, in Applicant's FIGS. 6A and 6B and in Applicant's specification. Paragraph [0094], for example, states that FIG. 6A illustrates that external antenna 34 includes a cable 86 and a loop-like telemetry head 74 at one end of the cable that may define a unique aperture 78 with a wide end 80 and a narrow, tapered end 82, e.g., somewhat similar to the shape of a tear drop. As wide end 80 and narrow, tapered end 82 form part of the same aperture 78, they are clearly disposed adjacent one another.

The Cimochoowski reference fails to teach each and every feature of Applicant's independent claims 1, 18, 25, 27 and 29, as amended. For example, Cimochoowski fails to teach or suggest an antenna that defines an aperture with a wide end and a channel disposed adjacent the wide end, as apparently recognized by the Examiner. Instead, Cimochoowski describes an antenna comprising an external coil with a ring-like structure such that the antenna defines a wide, open, circular aperture capable of wrapping around relatively large portions of a patient's body. The Office Action stated that the ring-like structure of the antenna defines both an aperture and a channel. However, Applicant's amended claims 1, 18, 27 and 29 require an aperture with a wide end and a channel disposed adjacent the wide end of the aperture. Clearly, a ring-like structure that defines a circular aperture cannot define an aperture that includes both a wide end and a channel that is narrower than the wide end disposed adjacent to each other.

Second, Cimochoowski fails to describe an antenna with a channel that is capable of holding a portion of an item of clothing associated with a patient and thereby holding the antenna in a substantially fixed position relative to an implantable medical device. Cimochoowski fails to even mention attaching the antenna to an item of clothing of the patient. Instead, Cimochoowski describes a stent implanted within an artery within a thigh of a patient that includes an RF antenna, and an external coil antenna that includes a plurality of turns sufficient in diameter to encompass the thigh of a patient. Cimochoowski further states that the external coil antenna can be made sufficiently large to encompass the portion of the body in which the implanted stent is disposed, such as the torso, another limb of the patient, or the neck of the patient. Clearly, Cimochoowski describes an antenna having a wide, open aperture capable of wrapping around relatively large portions of a patient's body, and makes no mention of any structure resembling a channel that is formed to hold a portion of clothing of a patient in order to position the antenna relative to an implantable medical device within the patient.

In regard to Applicant's independent claims 25, the Examiner applied the same arguments as to independent claims 1, 18, 27 and 29 discussed above. Applicant has amended claim 25 to recite an antenna for a medical device programmer comprising an antenna head, and means for attaching the antenna head to an item of clothing associated with a patient, where the means comprises a wide end and a channel that is disposed adjacent the wide end, is narrower than the wide end and is formed to hold the portion of the item of clothing.

As described above, Cimochoowski fails to teach or suggest a means for attaching an antenna head to an item of clothing that includes a wide end and a narrower channel disposed adjacent the wide end. Instead, Cimochoowski describes an antenna comprising an external coil with a ring-like structure such that the antenna defines a wide, open, circular aperture capable of wrapping around relatively large portions of a patient's body. The Office Action stated that the ring-like structure of the antenna defines both an aperture and a channel. However, a ring-like structure that defines a circular aperture cannot define a means that includes both a wide end and a narrower channel disposed adjacent each other.

Applicant's independent claims 1, 18, 25, 27 and 29, as amended, are in condition for allowance, as are claims 2-4, 7, 19, 20 and 23 dependent therefrom. Cimochoowski fails to disclose each and every limitation set forth in claims 1-4, 7, 18-20, 23 and 25. For at least these reasons, the Office Action has failed to establish a prima facie case for anticipation of Applicant's claims 1-4, 7, 18-20, 23 and 25 under 35 U.S.C. 102(b). Withdrawal of this rejection is requested.

Pool

In support of the rejection, the Office Action stated that Pool teaches an antenna housed within a belt, and that such a housing inherently possesses the ability to have clothing pulled through the channel created by buckling the belt, thereby holding the antenna in a substantially fixed position relative to the implanted device. In addition, the Office Action stated that because the opening of the belt-like housing of the antenna can be defined as both a channel and an aperture, if the belt-like housing of the device were held vertically then rotated about its vertical axis, the channel/aperture of the device would appear to be much thinner than the channel/aperture of the coil that is not rotated. The Office Action suggested that Applicant alter the phraseology of the claim to state that the thinner channel is disposed next to, above, or beneath the wider aperture, or something of the like.

Applicant once again takes issue with the Examiner's reliance on the mere appearance of the aperture in Pool, and not on the actual physical structure. Although Applicant believes that the Office Action has misinterpreted the scope and content of the Pool reference, as stated in the previous response, Applicant has amended independent claims 9, 18, 28 and 29 as suggested by

the Office Action in order to further prosecution of the present application. However, Applicant does not acquiesce in the rejections set forth in the Office Action.

Independent claims 9 and 28, as amended, recite positioning an antenna relative to an implanted medical device, wherein the antenna defines an aperture with a wide end and a channel disposed adjacent the wide end, wherein the channel is narrower than the wide end, and pulling a portion of an item clothing into the channel to thereby hold the antenna in a substantially fixed position relative to an implantable medical device. Independent claims 18 and 29, as amended, recite an antenna for a medical device programmer that defines an aperture with a wide end and a channel disposed adjacent the wide end, where the channel is formed to hold a portion of an item of clothing associated with a patient and thereby hold the antenna in a substantially fixed position relative to an implantable medical device. Support for the amendments is shown in Applicant's FIGS. 6A and 6B. Paragraph [0094] states that FIG. 6A illustrates that external antenna 34 includes a cable 86 and a loop-like telemetry head 74 at one end of the cable that may define a unique aperture 78 with a wide end 80 and a narrow, tapered end 82, e.g., somewhat similar to the shape of a tear drop.

The Pool reference fails to teach each and every feature of Applicant's independent claims 9, 18, 28 and 29, as amended. For example, Pool fails to teach or suggest positioning an antenna that defines an aperture with a wide end and a channel disposed adjacent the wide end relative to an implantable medical device. Instead, Pool describes a wearable telemetry arrangement for communicating with an implantable medical device that includes an article to be physically coupled to and donned on a body and an antenna member located on the article. For example, the Pool reference describes the wearable article as a buckled belt such that the antenna has a wide, open aperture capable of wrapping around a patient's waist. The Office Action stated that the belt-like housing of the antenna defines both an aperture and a channel. However, Applicant's amended claims 9, 18, 28 and 29 require an aperture with a wide end and a channel disposed adjacent the wide end of the aperture. Clearly, an antenna that defines a circular aperture cannot define an aperture that includes both a wide end and a channel disposed adjacent to each other.

Second, the Pool reference does not describe pulling a portion of an item of clothing into a channel defined by the antenna to hold the antenna relative to an implantable medical device.

Contrary to the assertion by the Office Action, buckling a belt in which the antenna described by Pool is disposed does not create a channel into which to pull a portion of an item of clothing to hold the antenna relative to the implantable medical device. Pool teaches an antenna being included in a wearable article with the ability to hold the antenna relative to the implantable medical device when a patient wears the article in which the antenna is disposed. Therefore, the antenna within the belt, as described by Pool, is positioned relative to an implantable medical device by buckling the belt around the patient's waist, not by pulling an item of clothing through the buckled belt. The interpretations of both the features of claims 9, 18, 28 and 29 and the Pool reference by the Office Action are unreasonably broad. Nevertheless, amendment of such claims per the Examiner's suggestions should make the differences between the claimed invention and the Pool reference even more clear.

In regard to Applicant's independent claim 25, the Office Action applied the same arguments as to independent claims 9, 18, 28 and 29 discussed above. Applicant has amended claim 25 to recite an antenna for a medical device programmer comprising an antenna head, and means for attaching the antenna head to an item of clothing associated with a patient, where the means comprises a wide end and a channel disposed adjacent the wide end, the channel is narrower than the wide end, and the channel is formed to hold the portion of the item of clothing. As described above, and as apparently recognized by the Examiner, Pool fails to teach or suggest a means for attaching an antenna head to an item of clothing that includes a wide end and a channel disposed adjacent the wide end. Instead, Pool describes an antenna disposed within an article, such as a belt, that a patient may wear such that the antenna has a wide, open aperture capable of wrapping around a patient's waist. However, an antenna that defines a circular aperture cannot define an aperture that includes both a wide end and a channel disposed adjacent to each other.

Applicant's independent claims 9, 18, 25, 28 and 29, as amended, are in condition for allowance, as are claims 10-12, 15, 19, 20 and 23 dependent therefrom. Pool fails to disclose each and every limitation set forth in claims 9-12, 15, 18-20, 23, 25, 28 and 29. For at least these reasons, the Office Action has failed to establish a prima facie case for anticipation of Applicant's claims 9-12, 15, 18-20, 23, 25, 28 and 29 under 35 U.S.C. 102(b). Withdrawal of this rejection is requested.

Bogle

In support of the rejection, the Office Action stated that Bogle discloses an antenna for a medical device programmer as recited in Applicant's independent claims 1, 25 and 27 and noted that the antenna and implanted device will always be reasonably interpreted as in a relative position to one another regardless of whether the antenna is applied to the person carrying the implant or another person in any other location. Applicant is confused by the application of the Bogle reference to the pending application. The interpretations of both the features of claims 1, 25 and 27 and the Bogle reference by the Office Action are so unreasonably broad as to be implausible.

Bogle discloses a focusing system for a variable focus lens of a motion picture camera in which a principle subject wears a transponder mounted on or within their clothing that communicates with the motion picture camera to ensure proper focusing on the principle subject at all times. Not only does the Bogle reference fail to teach each and every feature of Applicant's independent claims 1, 25 and 27, but the Bogle reference teaches virtually none of the features recited by the claims.

Bogle fails to describe the transponder as being for a medical device programmer. Bogle also does not describe the transponder as defining an aperture with a wide end and a channel disposed adjacent the wide end, as recited by amended claims 1, 25 and 27. Moreover, Bogle fails to describe how the transponder is mounted on or in the principle subject's clothing beyond the examples of including the transponder within jewelry, belt buckles, or sheriff's badges.

Bogle never even mentions the transponder being held in a substantially fixed position relative to an implantable medical device, i.e., a device implanted within the patient. Indeed, Bogle does not even contemplate the art of implantable medical devices. Instead, Bogle discloses the transponder mounted on or in the principle subject's clothing as communicating with a motion picture camera in order to keep focus even while a principle subject is moving. Clearly, the transponder is not held in a substantially fixed position relative to anything, let alone an implantable medical device.

Applicant's independent claims 1, 25 and 27, as amended, are in condition for allowance, as are claims 2 and 3 dependent therefrom. Bogle fails to disclose each and every limitation set forth in claims 1-3, 25 and 27. For at least these reasons, the Office Action has failed to establish a prima facie case for anticipation of Applicant's claims 1-3, 25 and 27 under 35 U.S.C. 102(b). Withdrawal of this rejection is requested.

Claim Rejection Under 35 U.S.C. § 103

The Office Action rejected claims 5, 6, 8, 16, 21, 22, 24 and 26 under 35 U.S.C. 103(a) as being unpatentable over Cimochoowski, and rejected claims 13, 14, 16, 17, 21, 22 and 26 under 35 U.S.C. 103(a) as being unpatentable over Pool. Applicant respectfully traverses the rejection to the extent such rejections may be considered applicable to the claims as amended. The applied references fail to disclose or suggest the inventions defined by Applicant's claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

Cimochoowski

In support of the rejection, the Office Action stated that although the Cimochoowski reference does not describe the features of Applicant's claims 5, 6, 8, 16, 21, 22, 24 and 26, it would have been obvious to one of ordinary skill in the art to modify the antenna taught by Cimochoowski to include the features. As described above, Cimochoowski fails to teach or suggest an antenna that defines an aperture with a wide end and a channel disposed adjacent the wide end, where the channel is formed to hold a portion of an item of clothing to hold the antenna in a substantially fixed position relative to an implantable medical device, as required by Applicant's amended independent claims 1, 18, 27 and 29. In addition, Cimochoowski does not describe a means for attaching an antenna head to an item of clothing of a patient to hold the antenna in a substantially fixed position relative to an implantable medical device, where the means comprises a wide end and a channel disposed adjacent the wide end and the channel is formed to hold the portion of the item of clothing, as required by Applicant's amended independent claim 25. Therefore, even if the antenna taught by the Cimochoowski reference were modified as

suggested by the Office Action to include the features of Applicant's dependent claims, such modification would not result in Applicant's invention as claimed.

For at least these reasons, the Office Action has failed to establish a prima facie case for non-patentability of Applicant's claims 5, 6, 8, 16, 21, 22, 24 and 26 under 35 U.S.C. 103(a). Withdrawal of this rejection is requested.

Pool

In support of the rejection, the Office Action stated that although the Pool reference does not describe the features of Applicant's claims 13, 14, 16, 17, 21, 22 and 26, it would have been obvious to one of ordinary skill in the art to modify the antenna taught by Pool to include the features. As described above, Pool fails to teach or suggest positioning an antenna relative to an implantable medical device, where the antenna defines an aperture with a wide end and a channel disposed adjacent the wide end, by pulling a portion of an item of clothing into the channel to hold the antenna relative to the implantable medical device, as required by Applicant's amended independent claims 9 and 28. In addition, Pool does not describe an antenna defining an aperture with a wide end and a channel disposed adjacent the wide end, where the channel is formed to hold a portion of an item of clothing associated with a patient and thereby hold the antenna in a substantially fixed position relative to an implantable medical device, as required by Applicant's amended independent claims 18 and 29. Therefore, even if the antenna taught by the Pool reference was modified as suggested by the Office Action to include the features of Applicant's dependent claims, it would not result in Applicant's invention as claimed.

For at least these reasons, the Office Action has failed to establish a prima facie case for non-patentability of Applicant's claims 13, 14, 16, 17, 21, 22 and 26 under 35 U.S.C. 103(a). Withdrawal of this rejection is requested.

CONCLUSION

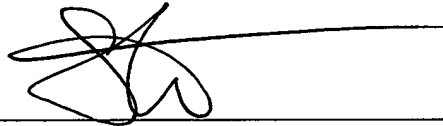
All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed agent to discuss this application.

Date:

11-22-06

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